

AMENDMENT

Amendments to the Claims

1(Currently amended). A multicarrier communication device system, comprising:

a processor having an Orthogonal Frequency-Division Multiplexing (OFDM) transmitter that uses a transmitter having channel knowledge of a communication link received in a previous preamble to select a subcarrier to puncture prior to transmission.

2-4(Canceled).

5(Currently amended). The device system of claim 1 wherein the OFDM transmitter punctures the selected subcarrier to remove information and energy channel knowledge is selected from multipath fading, in-band interference and active electronic devices.

6(Currently amended). The device system of claim 1 wherein the OFDM transmitter punctures the selected subcarrier is punctured by placing energy in the selected subcarrier without including any modulated data or information.

7(Currently amended). The device system of claim 1 wherein the OFDM transmitter punctures the selected subcarrier is punctured and a Peak-to-Average Power Ratio (PAPR) of an OFDM symbol is reduced.

8(Currently amended). The device system of claim 1 wherein the OFDM transmitter punctures the selected subcarrier is punctured by placing no energy in the punctured selected subcarrier and a power level for remaining subcarriers is maintained.

9(Currently amended). The device system of claim 1 wherein the OFDM transmitter punctures the selected subcarrier is punctured and power is redistributed to remaining subcarriers.

10(Currently amended). The device system of claim 1 wherein the OFDM transmitter punctures the selected subcarrier is punctured to avoid in-band spectral interference.

11(Currently amended). A communications device comprising:
a transceiver; and
a processor having a puncture block that receives channel knowledge a
transmitter having channel knowledge of a communication link subcarrier channel in a
prior preamble that is used to select a subcarrier to puncture prior to transmission by
the transceiver.

12(Currently amended). The communications device of claim 11 wherein the puncture block punctures the subcarrier is punctured by placing energy in the subcarrier without including any modulated data or information.

13(Currently amended). The communications device of claim 11 wherein the puncture block punctures the subcarrier is punctured and a Peak-to-Average Power Ratio (PAPR) of a symbol is reduced.

14(Currently amended). The communications device of claim 11 wherein the puncture block punctures the subcarrier is punctured by placing no energy in the punctured subcarrier and a power level for remaining subcarriers is maintained.

15(Currently amended). The communications device of claim 11 wherein the puncture block punctures the subcarrier is punctured and power is redistributed to remaining subcarriers.

16(Currently amended). The communications device of claim 11 wherein the puncture block punctures the subcarrier is punctured to avoid in-band spectral interference.

17(Original). A system comprising:
 an analog transceiver having at least one receiver chain to demodulate a subcarrier;

a processor coupled to the at least one receiver chain to select a subcarrier to puncture prior to transmission based on channel knowledge of a communication link; and

a Static Random Access Memory (SRAM) memory coupled to the processor.

18(Original). The system of claim 17, wherein the processor further includes:
an Orthogonal Frequency Division Multiplexing (OFDM) transmitter having a carrier puncturing circuit with an input to receive channel knowledge information.

19(Original). The system of claim 18 wherein the carrier puncturing circuit receives channel knowledge information about in-band spectral interference to puncture a subcarrier.

20(Original). The system of claim 17 wherein the processor further includes:
an Orthogonal Frequency Division Multiplexing (OFDM) receiver having a carrier depuncturing circuit that receives information about subcarriers to skip.